International Journal of Applied and Scientific Research (IJASR)
Vol. 4 No. 10, 2026: 687-696

Digitization of Public Services at the Population and Civil Registration Office of Lhokseumawe City

Zhafratun Navis[1]*, Rudi Kurniawan[2], Muhaddis[3], Syukri[4], Yasef Firmansyah[5]
[1,2,3,4]Universitas Senior Medan
[5]Universitas Prof Dr. Moestopo (Beragama)
Corresponding Author: Zhafratun Navis zhafratunnavis@gmail.com

ARTICLEINFO
Keywords: Digitalization, Public Services, Service Quality, Digital Literacy

Received : 27, August
Revised : 28, September
Accepted: 30, October

©2026 Navis, Kurniawan, Muhaddis, Syukri, Firmansyah: This is an open-access article distributed under the terms of the Creative Commons Atribusi 4.0 Internasional.

ABSTRACT
The use of digital technology in the implementation of public services is one of the government's efforts to improve the quality of services more effectively. This research aims to determine the digitization of public services at the Population and Civil Registration Office of Lhokseumawe City. The method used is a descriptive qualitative method with data obtained through interviews, observations, and documentation both online and directly from informants. The results of the study show that the Lhokseumawe City Dukcapil Office has implemented a digital-based service system that simplifies the process of processing population documents, accelerates service times without queues, improves service accessibility, and makes it easier for the public to obtain information and apply for services online. Supporting factors for digitalization include a stable internet network, adequate work equipment, and public acceptance of the implementation of digitalization. However, this digitalization still faces obstacles in the form of limited digital literacy of the community, the lack of synchronization of biodata inputted in the system with the documents that have been made, the absence of birth certificates for some elderly people, low public awareness in reporting the death of family members, and the need to synchronize data with other agencies across ministries in several types of services.

DOI: https://doi.org/10.59890/ijasr.v4i10.1
E-ISSN: 3025-7670
https://journalijasr.my.id/index.php/ijasr

INTRODUCTION

Public administration is a field of study and practice that focuses on the management and implementation of public policies by the government, encompassing various activities of government agencies in providing services to the community and achieving social and economic goals (Nadjib & Khairunnas, 2024). The creation of a fair and prosperous social order through effective public services is pursued through operational efficiency and effectiveness strategies designed to respond to the challenges of budget limitations, demands to improve service quality, and the need for bureaucratic reform that is more responsive to the needs of the community (Handini et al., 2025).

Population administration services are regulated in Law Number 23 of 2006 concerning Population Administration as amended by Law Number 24 of 2013, and further developed through the Regulation of the Minister of Home Affairs Number 7 of 2019 concerning online administrative services. The regulation is motivated by the need to form effective and efficient governance through a population administration service system that is easier and faster for the community (Sakira, Tamrin, & Sari, 2025). The development of information and communication technology has also encouraged the use of digital technology in the implementation of public services as an effort by the government to improve the quality of services faster, more effectively, efficiently, transparently, and more accountable.

The Population and Civil Registration Office (Disdukcapil) has a strategic role in public services because it is responsible for various population administration services, such as the creation of Electronic Identity Cards (e-KTP), Family Cards (KK), birth certificates, death certificates, child identity cards, and other population documents that are the basis for the community to obtain various administrative, social, economic, and legal rights (Divanda Triendo Putri et al., 2023). In line with the Electronic-Based Government System (SPBE) policy, the Lhokseumawe City Population and Civil Registration Office has carried out various digital-based service innovations through the use of applications and information systems that allow the public to apply for population documents online, in the hope of reducing queues, speeding up the service process, improving data accuracy, and expanding access to services.

However, the implementation of digitization of population administration services at the Lhokseumawe City Population and Civil Registration Office still faces its own challenges, because not all people have an adequate level of digital literacy to access services independently, so some people still experience difficulties in registering, uploading documents, and monitoring the service process. In addition, even though the service is digital-based, there are still possible administrative constraints and incompatibilities between the purpose of digitalization and the conditions of implementation in the field. Based on this description, this article aims to find out the digitization of public services at the Lhokseumawe City Population and Civil Registration Office and identify supporting and inhibiting factors in its implementation.

LITERATURE REVIEW

Public Service

According to Law Number 25 of 2009 concerning Public Services, public services are activities in order to meet service needs in accordance with laws and regulations for every citizen and resident for goods, services, or administrative services provided by public service providers. Quality public services must be carried out professionally, transparently, and responsibly in order to provide satisfaction to the community (Moenir, in Hardiansyah, 2018), by applying the principles of transparency, accountability, efficiency, effectiveness, and justice in every service process.

Digitization of Public Services

Digitalization is the process of utilizing information and communication technology in the implementation of government services to the community which aims to increase the efficiency, effectiveness, transparency, and accountability of public services (Heiskala et al., 2016). The government supports this transformation through Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems and Government Regulation Number 38 of 2017 concerning Regional Innovation. One form of digitization of population services is Digital Population Identity (IKD), which functions as a tool for proofing, authenticating, and authorizing identity based on biometric technology and QR codes, so that people can access public services faster, safer, and without having to carry physical documents (Kompasiana, 2023).

Population Administration and Civil Registration

Population Administration according to Law Number 23 of 2006 is a series of structuring and regulating activities in the issuance of population documents and data through population registration, civil registration, management of population administration information, and utilization of the results for public services and the development of other sectors. The Population and Civil Registration Office is an implementing element of the local government in the field of population and civil registration that is in charge of carrying out the domestic affairs of local governments, including the formulation of technical policies, the implementation of public services, and guidance in the field of population administration (Sudarsono, 2007).

METHODOLOGY

This study uses a qualitative method with a descriptive approach to understand and describe phenomena in depth based on data obtained from the field, without using statistical calculations (Sugiyono, 2022). The research was carried out at the Lhokseumawe City Population and Civil Registration Office, located on Jalan Stadion Tunas Bangsa, Mon Geudong, Lhokseumawe City, from March to August 2026, including the preparation stages of research proposals, field research, data interpretation, and the preparation of research report results.

The research informants were selected using purposive sampling techniques, namely the Head of the Lhokseumawe City Population and Civil

Registration Office, a digital service system operator officer, and four people who use population administration services. The data collection technique was carried out through triangulation in the form of observation, in-depth interviews, and documentation. Data analysis refers to the interactive model of Miles and Huberman (2014) which includes data reduction, data presentation, and conclusion drawn.

RESEARCH RESULT

Implementation of Digitization of Public Services at the Population and Civil Registration Office of Lhokseumawe City

The implementation of digitization of public services at the Lhokseumawe City Population and Civil Registration Office is part of efforts to modernize population administration services to be faster, more effective, and more efficient. Digitalization is carried out through the use of information technology in the management of population documents, so that people do not always have to come directly to the service office. Based on the results of interviews and observations, the implementation of digitalization can be seen from the application of two service mechanisms, namely manual services and digital services, as well as their impact on the quality of service to the community.

a. Manual and Digital Service Mechanism

"... The implementation of digitization of public services in the Lhokseumawe City Dukcapil is going well. The implementation of digitalization is carried out as a form of public service innovation to adjust to technological developments while increasing the convenience of the community in taking care of various population administration documents such as family records, ID cards, birth certificates, and so on." (Munir, S.Sos., MSM, Head of the Population and Civil Registration Office of Lhokseumawe City, interview, June 15, 2026)

Fakhrul Razi, S.T., MSM as the service officer explained that the implementation of services to the community is carried out through two mechanisms, namely manually and digitally. Manual services are still provided for people who are not able to access digital services, while digital services are aimed at making it easier for people who already have devices and understand the use of applications. In manual services, people come directly with files to be checked and entered by the operator, while in digital services, people download and apply through the application without having to come to the office.

"... Digital services are quite easy because the application process can be done online without having to come directly to the office, and the information on requirements is available quite clearly." (Society, interview, June 17, 2026)

b. Digital Population Identity Services (IKD) and SIAK

"... Services that have been implemented digitally at the Lhokseumawe City Dukcapil include the Digital Population Identity (IKD) which can be accessed by the public, and the Population Administration Information System Application (SIAK) which can only be accessed by employees of the Population and Civil Registration Office." (Munir, S.Sos., MSM, Head of the Population and Civil Registration Office of Lhokseumawe City, interview, June 15, 2026)

The IKD application allows the public to download and access population registration and civil registration services, such as family card management, ID cards, transfer letters, birth certificates, and death certificates, without having to come directly to the office. Meanwhile, SIAK is used by employees to process applications and manage population databases. The enthusiasm of the people of Lhokseumawe City in activating IKD continues to show an increase, which reflects the increasing public awareness of digital-based services.

"... Digital services are quite practical because they can be accessed from home, especially for people who are used to using mobile phones." (Society, interview, June 17, 2026)

c. The Effect of Digitalization on Service Quality

"... Digitization of services has a great effect on the quality of service to the community because it is considered to be able to make it easier for the community to make important documents such as ID cards, Family Cards, Birth Certificates, Death Certificates, and other population documents." (Munir, S.Sos., MSM, Head of the Population and Civil Registration Office of Lhokseumawe City, interview, June 15, 2026)

Fakhrul Razi, S.T., MSM added that digitalization greatly simplifies the work of officers while facilitating services to the community, because people no longer need to come to the Dukcapil office just to submit files, because files can be uploaded directly through the application. From the community's side, Dukcapil officers are considered to provide friendly, polite, and responsive services, as well as help provide direction if there are shortcomings of files or obstacles in the submission process.

"... Digital services reduce queues at service offices and allow file delivery to be done online, saving time and effort." (Society, interview, June 17, 2026)

Overall, the implementation of digitization of public services at the Lhokseumawe City Population and Civil Registration Office can be seen through the implementation of two service mechanisms, the availability of Digital Population Identity (IKD) services and the Population Administration Information System (SIAK), as well as their influence on improving the quality of services to the community. However, there are still aspects that need to be improved so that all levels of society can get optimal access to digital services.

Supporting and Inhibiting Factors for the Digitalization of Public Services at the Population and Civil Registration Office of Lhokseumawe City

Although the digitalization of public services has been implemented, the results of the study show that there are still a number of supporting and inhibiting factors that affect the effectiveness of its implementation, ranging from the availability of technological infrastructure, human resources, to people's digital literacy.

"... The availability of internet networks (WiFi) and work devices such as computers are the main factors that greatly support the smooth implementation of digital services." (Munir, S.Sos., MSM, Head of the Population and Civil Registration Office of Lhokseumawe City, interview, June 15, 2026)

Fakhrul Razi, S.T., MSM added that the factors that most support the smooth running of digital services are the availability of electricity and internet networks, as well as the readiness of human resources in operating the system. On the other hand, the results of the interviews also show that there are still many people who do not have supportive mobile phones, and some who have mobile phones do not understand the use of email needed in the digital service process. Other obstacles found are the lack of synchronization of biodata inputted in the system with the documents that have been made, the lack of birth certificates by some elderly people, and low public awareness in reporting family members who have died.

To overcome these various obstacles, the Lhokseumawe City Population and Civil Registration Office has made a number of strategic efforts, namely providing socialization and understanding to the public through social media and brochures, improving the quality of human resources through technical guidance on the use of applications, strengthening the integration of the Population Administration Information System (SIAK) with related agencies such as BPJS Kesehatan and the Civil Service Agency, and encouraging involvement young generation in the development of digital-based public services.

DISCUSSION

Based on the results of the study, the digitization of public services at the Population and Civil Registration Office of Lhokseumawe City shows that the implementation of services has led to the use of information technology to facilitate, accelerate, and increase the accessibility of population administration services. According to Heiskala et al. (2016), digitalization is the process of entering something into digital form that aims to increase the efficiency and effectiveness of services, while the use of applications such as Digital Population Identity (IKD) provides easier access, time savings, and better security for the public in managing population documents (Iqbal & Mirza, 2024).

The results of the study also show that service digitalization has had an influence on improving service quality, especially in terms of speed, convenience, and queue reduction. This is in line with the view that the quality of public services is superior service delivery according to public expectations and is assessed based on the suitability between reality and the expectations of service users (Adam, in Hardiansyah, 2018). However, the implementation of digitalization has not completely replaced manual services because not all people have the same readiness to access services independently, so agencies still maintain two service mechanisms as a form of adjustment to community conditions.

The results of the study show that the success of digitizing public services is not only determined by the availability of application systems, but also by the support of technological infrastructure, the readiness of human resources, and the level of digital literacy of the community as service users. The availability of adequate internet networks and work devices is the main factor that supports the smooth running of digital services, in line with the view that information

technology infrastructure is one of the important elements for the success of e-government (Sakira, Tamrin, & Sari, 2025). On the other hand, the limitations of people's digital literacy, the insynchronization of biodata in the system with supporting documents, and low public awareness in reporting population events are obstacles that affect the effectiveness of digitalization implementation.

Efforts to modernize information technology and increase human resource capacity carried out by the Lhokseumawe City Population and Civil Registration Office are in line with the spirit of digital bureaucratic reform which emphasizes the importance of efficiency, innovation, and the use of technology in improving the quality of public services (Fahlevi & Octaleny, 2024). Thus, the obstacles found in this study do not show the failure of digitalization, but organizational challenges that need to be managed through continuous socialization, infrastructure strengthening, and data integration between agencies so that the benefits of digitalization can be felt equally by all people.

CONCLUSIONS AND RECOMMENDATIONS

The digitization of public services at the Lhokseumawe City Population and Civil Registration Office has been running well through the implementation of Digital Population Identity (IKD) services and the Population Administration Information System (SIAK) which makes it easier for people to take care of population documents without having to come and queue at the office. The quality of public services has improved, characterized by faster, easier, and more efficient services. However, its implementation still faces obstacles in the form of low digital literacy of the community, mismatch of biodata with supporting documents, the lack of birth certificates by some elderly people, the lack of optimal reporting of the death of family members, and the need for data synchronization with other agencies across ministries.

Based on these findings, this study recommends that the Lhokseumawe City Population and Civil Registration Office continue to improve the quality of information technology infrastructure, increase the capacity and competence of human resources through periodic training, expand the socialization of digital services to the community, and conduct periodic evaluations of the digital systems used, so that obstacles in the implementation of digitization of public services can be minimized and The benefits can be felt equally by the entire community.

ADVANCED RESEARCH

This study has limitations because the researcher cannot access the population database application directly considering its private nature and can only be accessed by the authorities. In addition, the limited time in interviewing the Lhokseumawe City Population and Civil Registration Office and the informant's general answers also limit the depth of the data obtained. This study also has not quantitatively measured the level of public satisfaction with the digital services provided.

ACKNOWLEDGMENT

The author would like to thank all leaders and the academic community of the Public Administration Study Program, Faculty of Administrative Sciences, Education, and Economics, Senior University of Medan, for their guidance, academic direction, and constructive input during the preparation of this article. Thank you also to the Lhokseumawe City Population and Civil Registration Office and all research informants for their willingness and cooperation in the data collection process.

REFERENCES

Alexander, A., Sahay, M. F. A., & Rhama, B. (2025). Implementation of Government Policy in Digitization of Population Documents (Study of Digital Population Identity Services of the Population and Civil Registration Office of Palangka Raya City). Journal of Public Administration (JAP), 11(1).

Amba, N., Saleky, S. R. J., & Sahertian, O. L. (2023). The Effect of Public Service Quality on Community Satisfaction in Saluhutu District, Central Maluku Regency. Journal of Applied Administration.

Andani, D., & Dinawarti, S. (2025). Digital Transformation in Population Administration Services at the Subang Regency Population and Civil Registration Office. Dynamics: Scientific Journal of State Administrative Sciences.

Anjani, R. S., & Abdal. (2026). Implementation of Electronic-Based Government System (SPBE) Policy in Supporting the Digital Transformation of Public Services in Indonesia. Indonesian Journal of Multidisciplinary on Social and Technology, 4(2), 2571–2579.

Apsari, N. (2025). Digital-Based Public Service Quality at the Palu City Population and Civil Registration Office. Journal Administrator.

Bandu, A. (2024). Public Service in the Digitalization Era in the Perspective of Communication Science. Ombudsman of the Republic of Indonesia.

Disdukcapil of Lhokseumawe City. (2024). Profile, Vision, Mission, and Organizational Structure. disdukcapil.lhokseumawekota.go.id

Fahlevi, A. R., & Octaleny, E. (2024). Digitization of Public Services at the Palembang City Population and Civil Registration Office. Lantern Management Journal.

Get to know more about IKD. (2025, March 10). Buleleng Regency Disdukcapil.

Haditiya, D. M., & Mursyidah, L. (2024). Unlocking Governance Efficiency through Archival Innovation in Indonesia. Indonesian Journal of Public Administration Review, 1(3), 20.

Handini, N., Darwina, M., Juliana, S., Judith, & Pangestoeti, W. (2025). Optimizing the role of the public sector in increasing efficiency and effectiveness in state financial management. Triwikrama: Journal of Social Sciences, 6(11), 11–20.

Hardiansyah. (2018). Public Service Quality: Concepts, Dimensions, Indicators and Implementation. Gava Media.

Iqbal, M., & Mirza, T. (2024). Digitization of Public Services in the Population Service Sector. Proceedings: Indonesia's Resilience in the Vortex of Global Disruption.

Lenak, S. M., Sumampow, I., & Waworundeng, W. (2021). The Effectiveness of Public Services through the Implementation of Electronic Government at the Tomohon City Education Office. Journal of Governance, 5.

Maftukhah, I. (2024). Digitization of the One-Stop Integrated Service System (PTSP) in Education Services at the Office of the Ministry of Religion of Malang Regency. Journal of Islamic Education Management, 399.

Moleong, L. J. (2017). Qualitative Research Methodology. PT Remaja Rosdakarya.

Mutmainna, N. (2025). Digital-Based Public Service Innovation in Improving the Effectiveness of Government Services to the Community. Trust: Journal of Public Sector Financial Management.

Nadjib, A., & Khairunnas. (2024). Textbook of Public Administration Theory. PT Media Penerbit Indonesia.

Population Administration Information System. (2023, July 24). Wikipedia.

Roring, A. D., Kushartono, T., & Wulandari, W. (2025). Implementation of Government Policy on Digitalization of Public Services in Cimahi City. Praxis Idealist: Journal of Government Science Students, 2(1).

Sakira, Y., Tamrin, & Sari, L. P. (2025). Analysis of the Success of the Implementation of an E-Government-Based Population Administration Service System on the Dukcapilceria Mobile Application. Journal of Political Voices.

Sisilianingsih, S., Purwandari, B., Eitiveni, I., & Purwaningsih, M. (2023). Analysis of Digital Transformation Factors of Government Public Services in the Pandemic Era. Journal of Information Technology and Computer Science, 10(4), 883–892.

Sudarsono. (2007). Legal Dictionary. Rineka Cipta.

Sugiyono. (2022). Qualitative, Quantitative, and R&D Research Methods.